

Comments and Responses on Public Review Draft of SOCCR/SAP 2.2 (September 2006)

COMMENTS FROM PUBLIC REVIEWERS						AUTHOR'S RESPONSE						
Comment Number	Reviewer ID	Chapter	Page	Line	Comment Text	Acknowledged, but no further response or revisions are required	Revisions have been incorporated as suggested in the comment	Agree, but see "Notes on Response"	Agree, but elaboration is precluded by length limitations	Disagree; see "Notes on Response"	Beyond scope of report/chapter	Notes on Response
These are General comments on the SOCCR/SAP 2.2 report, and they apply to all chapters												
G-001	3	All			Please number the pages of the report sequentially "1, 2, 3...420" instead of by chapter "ES-1, 2...5-1, 5-2,..." Sequential numbering is normal for almost all publications and reports and will greatly help the reader."					X		Current page numbering is appropriate to the Draft being reviewed making it easier to refer to particular chapters. Consecutive numbering may or may not be utilized in final production.
G-002	3	All			The overwhelming majority of the authors, data, citations, and material come from the U.S. For that reason and because this report is a U.S. Government report, it would be best to restrict the report to the United States only. Otherwise, the US CCSP should include the Governments of Canada and Mexico in the planning and implementation of the report, include more Canadian and Mexican scientists as authors, and provide more data and results about Canada and Mexico.					X		The report's mandate was to cover North America. Both Canadians and Mexicans are Coordinating Lead and Lead Authors of several chapters. Issues of including Canadian and Mexican governments are beyond the scope and authority of the author team.
G-003	5	All (esp. Chapt 11)			I have the following comment, mainly for the Forest section but also other sections, and executive summary--The very important issue that recent data show that mature forests and other ecosystems, especially mature coniferous forests in the US and Canada, may switch from a carbon sink to a carbon source as a response to climate change such as mean air temperature increases, is not addressed. This positive feedback would augment global warming processes.		X					Additional discussion of vulnerability has been added.
G-004	7	All			As I mentioned at the stakeholders meeting last month, I believe that sink permanence needs to be explicitly dealt with in the appropriate chapters covering sinks. It is the issue that creates the most difficulty for policy-makers, so if this document can help shed some light on this issue and offer some creative solutions, then this document will be very useful.		X					Additional discussion of permanence has been added.
G-005	8	All			BASF acknowledges the growing problem of unchecked greenhouse gas emissions and the potential impact on the global climate systems. While the potential impact of rising GHG from anthropogenic sources are uncertain, BASF believes that the path forward requires acting in accordance with the principles of sustainable development, and, in response to this issue our company position supports: (1) International cooperation in climate and energy policies that achieve effective climate control without compromising economic growth or creating regional competitive impediments. (2) Further investments in the development of 'low carbon' technologies and energy conservation. (3) Application of the Kyoto mechanisms (JI and CDM) in connection with emission trading involving participation by all major contributors to greenhouse gas emissions. (4) The rapid refurbishing of existing fossil fuel power plants, options for nuclear power development, and application of regenerative energy production technology where economically feasible.	X						
G-006	8	All			Innovations from the chemical industry are the key to greater energy efficiency and sustainable climate protection. In our research strategy we are concentrating major technology-driven issues of particular relevance to the future in the five growth clusters: energy management, raw material change, nanotechnology, plant biotechnology and white (industrial) biotechnology.	X						

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G-007	8	All			BASF is developing and marketing products that contribute to energy savings and CO2 reductions. Examples are insulating materials for the construction industry, plastics to make cars lighter and additives to enhance fuel efficiency	X						
G-008	12	All			The authors and others who participated in the process are to be congratulated for carrying out a plan that was much more arduous than the usual scientific review and assessment. The result is a synthesis that breaks new ground in its emphasis on the central and integrating role of human activities in the recent and future state of the carbon cycle. This emphasis required, from the very first planning stages, active participation by non-scientists. It was obvious to all participants that these interactions needed new styles of organizing and communicating, and that the work involved learning by trial and error. Recognizing these difficulties, the leaders of this report have always viewed it as a prototype from which lessons could be learned for the improvement of subsequent reports.	X						
G-009	12	All			One of the central lessons of this prototype report is that synthesizing scientific knowledge is much easier than connecting that knowledge to decision support and policy formulation. I would characterize the present draft as a comprehensive scientific synthesis but a mediocre contribution to decision support.	X						While we agree with the characterization of the relative difficulties in scientific assessment and connecting the science with decision support, we respectfully disagree with the characterization of the contribution of this report to decision support as "mediocre".
G-010	12	All			The report's weaknesses begin with a need for better integration across its three Parts and fifteen Chapters. There are many examples of inconsistencies (some detailed in specific comments below), and cross-referencing is the exception rather than the rule. Some important topics appear to have "fallen through the cracks." For example, technologies for carbon capture and storage are treated very sparsely in comparison to their level of program attention and funding. Emissions scenarios are apparently deferred entirely to another SAP report (2-1), despite their obvious importance to addressing one of the present report's central goals, assessment of projections of the future of the North American carbon budget.		X					Inconsistencies across chapters have been corrected to the extent possible. There will always be varying degrees of disagreement among authors, due to uses of different databases, etc., all of which contribute to the uncertainty of the scientific assessment. Additi+M20onal cross referencing has been added. Explicit treatment of scenarios is beyond the scope of the report. The report focuses on the current North American carbon budget and discusses possible future behaviors, with a general consensus, at least with respect to land sinks, that the future of North American sinks is highly uncertain, and largely beyond the ability of the science to support consensus projections.
G-011	12	All			The shortcomings in integration make many aspects of basic scientific assessment very difficult. There is no integrated evaluation of the full range of carbon sequestration options. There is no overall assessment of current research directions (in particular, the North American Carbon Program, or NACP) and how they might be improved in the future.						X	The report does cover sequestration options in the appropriate chapters and in Chapter 4. More extensive focus on and detailed discussion of all sequestration options is beyond the scope of the report. The mandate for the report did not include assessment of NACP research efforts. See response to Comment #G-012 below.
G-012	12	All			One of the report's stated goals is to "identify where NACP-supported research will reduce current uncertainties in the North American carbon budget and where future enhancements of NACP research can best be applied to further reduce critical uncertainties." Yet the NACP is mentioned only once in the entire report.			X				The report is not intended as a science or research plan for NACP. The indicated text is meant in the generic sense that in acting as a baseline against which results from NACP can be compared (noted earlier in the Preface), the report does identify uncertainties and research needs (in individual chapters and in the Executive Summary) that can be evaluated by NACP investigators and program managers on how there research can address these needs.

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G-013	12	All			The report includes an excellent chapter on the carbon cycle in permafrost regions, with immediate implications for research priorities, yet this issue is not even mentioned in the report's Executive Summary.		X					See discussion of importance of reducing uncertainty in future permafrost behavior now part of the discussion of research needs in the Executive Summary.
G-014	12	All			The above examples represent shortfalls in decision support ranging from consideration of policy options to weighing of research priorities		X			X		A summary of research and development needs has been added to the Executive Summary. Chapter 4 and the Executive Summary does provide synthesis of policy options, within the scope of the report and the desire to be policy relevant but not policy prescriptive.
G-015	12	All			There are some steps that could be taken to improve the report's overall integration and relevance to decision support. Needless to say, double counting and inconsistencies should be resolved. The editors need to go over the entire document with consistency and cross-referencing in mind. The report's preface should be rewritten around a truly independent "lessons learned" theme rather than the verbatim repetition of the Government prospectus.		X					Actions in accord with those suggested by the reviewer were taken during the revision of the report.
G-016	12	All			Perhaps most important, the integrating power of the carbon mass balance could be better utilized. For example, chapters 6-15 could each include an analysis of options and measures with potential carbon mass rates and capacities for each action. Fig ES-1 or something like it could then be used easily as an integrating graphical representation, with bars subdivided to illustrate the various sectors and other themes addressed in each chapter. An equivalent figure could be developed to illustrate projected source – sink scenarios. The same kind of bar graph could be used to show partitioning of funding within NACP and other research and technology programs, as part of an assessment of the NACP per the stated goal. If there is a single tool that must be passed by carbon-cycle science to users of decision support, it is the carbon mass balance.			X			X	Interesting suggestions, but it is unlikely that information is available (published) to support the specific suggested figures. And, an exploratory or speculative analysis that might generate such figures is beyond the scope of the report. Certainly any such analysis of the funding in the NACP is beyond the scope of the report. See response to comment # G-012 for the relationship between this report and NACP research agendas.
G-017	13	All			In general, the Edison Electric Institute (EEI) welcomes the development, pursuant to Chapter 7 of the Strategic Plan for the U.S. Climate Change Science Program (CCSP), of this first of several "Carbon Cycle" reports that are contemplated over a 10-year period. We particularly welcome the initial reporting focus on North America and view it as a potentially useful beginning building block to an improved understanding of the carbon cycle globally.	X						

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G-018	13	All			The process for the development of this draft began several years ago with, according to the final Prospectus of February 2006, "[a] process for engaging important stakeholder groups and establishing an ongoing dialogue with them," which "will be a priority activity." We understand that the process included a "Stakeholder Assessment" "comprised of 30 telephone interviews carried out by staff members of the "Consensus Building Institute," which issued in November 2004 a "State of the Carbon Cycle Report Final Stakeholders Assessment Report." We were not aware of that report until EEI was invited to attend the October 2006 workshop on this draft report. Subsequent to the Institute's report, we understand that there have been a series of workshops and other events for stakeholders other than EEI, with the last occurring on October 10, 2006.	X						
G-018 (cont)					EEI was invited to participate in the October 10 workshop after we noted in our June 2006 comments on the May 2006 draft of this report that we were not included in this stakeholder "process." As far as we can determine from an October 10, 2006, "List of Non-Author Participants" titled "SOCCR Stakeholders," only one EEI member company was invited to participate early on in the process. Nevertheless, we appreciate the invitation to the third workshop and urge the CCSP to include EEI in future reporting processes under its 10-year program	X						
G-019	13	All			We have some organizational concerns with how the draft is arranged and with the extensive number of summaries. In the case of the latter, there is a Preface, an Executive Summary, a separate "Overview" for both Parts II and III, "Key Findings" for the various chapters, and for some, but not all, chapters "Conclusions," a "Summary and Conclusions" or just a "Summary." We question the value and need for all of these.					X		The Executive Summary and the Key Findings of Chapters in Parts II and III are intended for those wishing to quickly access the highlights of the report or to determine if a chapter includes information that they wish to expend time reading and digesting. We disagree that any appearance of variance between Key Findings and conclusion is real. The Overviews are meant to address issues that cut across the chapters of that section (i.e., Part II or Part III), in part to avoid redundancy among chapters.
G-020	13	All			In particular, we question the need for the conclusion, summaries, etc. in the case of the chapters when there are also "Key Findings," especially since they are not consistently included in all chapters and since in some cases the "Key Findings" and "Conclusions" appear at variance.					X		See response to Comment #G-019 above.
G-021	13	All			In terms of arrangement, Part I consists of three chapters that respond individually to three specific questions about the carbon cycle and carbon science and two chapters related to the North American carbon cycle and carbon budget. Thus, Part I leaves one with the impression that it is independent of Part II, on sources, and Part III, on sinks. Although there are some cross-references in Part I to chapters in Parts II and III, both Parts are relevant to responding to the various questions listed in the Preface (p. ix) and should be better integrated into Part I – which we construe as the primary focus of the entire report – particularly Chapter 4.		X					Additional cross referencing has been added.

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G-022	13	All			In response to our comments, the Peer Reviewers noted in "Comments and Responses on SOCCR/SAP 2.2 Draft 1 (May 2006) Preface and Executive Summary" (p. 12 of 15) that "[r]epresentatives of the energy sector have been involved in our workshops, and we have invited representatives of EEI to the third workshop in 2006. Apologies to EEI if they were inadvertently overlooked in earlier invitations." While we appreciate the apologies, our review of the "List of Non-Author Participants" in the State of the Carbon Cycle Workshops that was provided to us on October 10 does not indicate a significant participation from various portions of the energy sector. Perhaps that is due to a lack of an adequate explanation by the CCSP or the draft report's authors as to the relevance of this work to the energy sector.	X						
G-022 (cont)					It may have been perceived by many in the energy sector (including the utility representative early on) as largely a scientific study not within their areas of expertise, particularly if early outlines did not include a full description of the material contemplated for inclusion in Parts II and III and Chapters 4 and 5 of the draft. For future carbon cycle reports, we recommend that such an explanation be included.	X						